Hale Pumps Information

Model TPM Total Pressure Master Relief Valve System

- Monitors and responds to pressure variations on both the suction (inlet) and discharge sides of the pump.
- Pump is protected from overpressure.
- By monitoring and controlling pressure changes on both sides of the pump, the Hale TPM can be responsive to small and large changes in pressure automatically.
- Meets or exceeds NFPA 1901 specifications.
- Totally mechanical system, relief valves operate on water pressure.
- Total protection throughout the pump and hose lines utilizing automatic sensing device.
- Will not interfere with priming. The dump valve is mounted on the discharge not the suction. Provides protection from excess inlet pressure during relay and hydrant operation.
- Excess pressure dumped to the atmosphere from the discharge side.
- Single panel-mounted pressure control valve with easy to read and set pressure adjusting scale.

Master Intake Valve

Finally, a large diameter NFPA compliant inlet valve designed to fit **BEHIND** the pump operator panel. The Hale Master Intake Valve (MIV) becomes an integral part of the fire pump. During draft operation, water flows up to 1500 GPM (5678 LPM) through a single 6 inch suction hose are obtainable with the Hale MIV in place on a midship pump. Additionally, water flow up to 2000 GPM (7570 LPM) during draft operations are obtainable when using dual 6 inch suction hoses. The Hale MIV meets NFPA requirements for operations using large diameter supply hose.

- Mounts in Fire Pump Suction- The Hale MIV is normally sandwiched between the suction tube extension and suction tube and becomes an integral part of the fire pump. The valve may also be mounted in-line for front and rear suction piping. Since the valve is located behind the operator panel, the only components visible on the operator panel are the placards with indicators and a handwheel. There is no unsightly, bulky valve hanging outside the running boards, creating a safety hazard or obstructing other pump operating components.
- Full Flow Bore and Butterfly Disc Design - The oversize 6.4 inch (163 mm) diameter bore and streamlined butterfly disc design allows the Hale MIV to

remain in place during high volume draft operations, unlike other valves which restrict the flow and can cause cavitation. This means that the Hale MIV can remain in place while the apparatus is undergoing NFPA/UL certification for water flows up to 1500 GPM (5678 LPM) with a single 6 inch suction hose, as well as 2000 GPM (7570 LPM) certification with dual 6 inch suction hoses. The valve does not have to be removed and replaced regularly, leaving less chance for leaks or damage to the valve components.

- Electric Motor Operation - The Hale MIV-E is equipped with 12 VDC remote control electric motor operation that uses a panel mounted switch.The Hale MIV-E is especially suitable for "Top Mount" pump operator panels or where the valve is located in front or rear suction piping.
- Manual Operation-The Hale MIV- a manual handwheel operated valve that will cycle from full closed to full open position using just 10 turns of the handwheel. When the valve is mounted in the pump suction the handwheel is located next to the suction tube connection where it is needed.
- NFPA Compliant Gear Actuator - The design of the gear actuator on both MIV-E and MIV-M is such that the valve will cycle from full closed to full open position in not less than 3 seconds, thus meeting the requirements of NFPA.
- Built-in Pressure Relief - Both models of the Hale MIV have a built-in NFPA compliant adjustable pressure relief valve as standard equipment. The pressure relief valve is factory set to 125 PSIG (9 BAR) but has a full adjustment range of 75 to 250 PSIG (5 to 17 BAR).
- Manual Override Handwheel- The Hale MIV-E has a panel mounted manual override handwheel that permits operation of the valve during abnormal conditions. There are no special tools or partial disassembly of the valve required to make emergency operation possible.

Model ESP Environmentally Safe Priming System

- Needs no lubricant. No oil to check, no oil is expelled to the ground.
- Environmentally safe.
- Electric rotary vane type positive displacement primer operates with 12 volt or 24 volt DC power.
- Totally enclosed motor to prevent dust, dirt, and water from entering.
- Vacuum capability of 24 in. HG (610 mm Hg). Exceeds NFPA 1901.
- Heat treated anodized aluminum specially coated for wear and corrosion resistance.